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DRM free French: ISBN 978-2-915825-25-1 English: ISBN 978-2-915825-26-8 http://net-lang.net

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ÉRIC PONCET

TECHNOLOGICAL INNOVATION AND LANGUAGE PRESERVATION

When industry is innovating new technologies, it is largely driven by a vision that is short to medium term. Languages on the other hand are evaluated in the long term. How does this meeting of time scales relate? Should we not think of ICT innovation in terms of linguistic diversity?

Original article in French. Translated by Laura Kraftowitz.



ÉRIC PONCET founded Linguasoft to support the communities wishing to maintain their language. He has managed many projects using his Language Preservation Process and Tools.

his insert elucidates the influence of information communication and technology (ICT) on the evolution of world languages, and argues for ICT innovation to target multilingualism.

Languages, Technology, and Time

Writing may be considered the oldest language technology (not least because no other before it left a trace). However, five millennia are but a brief period in the existence of human language. Let's not forget that the skull of *Homo habilis* (2.5 million years old) contains Broca's area, the region of the brain that controls language. Even if this does not necessarily mean that human language is 2.5 million years old, it at least gives us an idea of just how young language technology is. Despite its youth, writing has had an influence as fast as it is profound on the evolution of human society. It is precisely this kind of lightning-fast technological revolution –but this time unfolding on a planetary scale – that we are now experiencing with the internet.

Researchers and language activists agree that half of the world's 6,900 languages will disappear within a century. It is likely that this view greatly underestimates the present and future impact of cyberspace on multilingualism.

Technological Linguicide

Since technological innovation is – at least within the industry – often guided by a business approach with short- to medium-range vision, ICT is for world languages a double-edged sword. It is easily conceivable that a software company would place its consumer products on the Chinese

market, thereby entering a market of almost one billion Mandarin speakers, to whom it can distribute millions of licenses. But what happens when that same company wants to localize that same product to serve a language with fewer than 10,000 speakers – and this statistic currently applies to half the world's languages? Not only will the number of licenses sold count no more than a few dozen or at most a few hundred, but the localized aspect of the work will take longer (and therefore be more costly) than that of Mandarin. Indeed, many of these languages are not standardized, or do not even have a writing system. The company must thus accept to invest significantly more and earn much less. What company is willing or able to convince its shareholders and employees to adopt this as a business strategy? And what of the feasibility of localizing a piece of software for 6,900 languages? It comes as no surprise that not one of the world's millions of software programs comes even remotely close to approaching this level of multilingualism.

Innovation and Multilingualism

So, given the technology factor, is there no salvation for multilingualism?

Current multilingual technology is simply too restricted, partly because of its limitation for the aforementioned reasons, to the world's most powerful languages. It makes sense to extend multilingualism toward panlinguism. In other words, rather than *sprinkling* technologies with language, it becomes necessary to rethink them to the end of *integrating* language – as a strong characteristic of humanity.

Woe to the languages that do not have the critical mass, either in speakers or in financial resources. Their weak presence on the Web – if not their complete absence – means that their speakers are, by default, linguistically absorbed into languages that have an online presence. The astrophysical analogy of the black hole is no exaggeration: languages without sufficient inertia or mass to continue their trajectory will inevitably be absorbed, and the lower their mass the faster.

If the first aspect of critical mass (number of speakers) cannot be increased overnight by a simple magic wand, then second (financial resources) may be: language preservation programs can be launched with modest budgets, and all funding is in this sense a catalyst for productive energy into the language communities concerned.

Éric Poncet

Prospective

Let us return to the rate of language extinction within a century as mentioned above. The author, given current trends and the field work he has undertaken, predicts a language death rate of 80-95%.

It took writing several centuries to conquer the world; it took a decade for the internet to revolutionize the way its users communicate, eat, work, and play; in short, how they live. It is important to note that language (thus, languages) is the vector of all these activities. Given that the Network of networks is a major language vector, what can we expect for the coming century – ten times the current age of the internet? Can we exclude the emergence of a technology more earth-shattering than writing or the internet? Such an event would leave the majority of world languages little chance of survival, and could lead in the short term to a cultural cataclysm.

"Science without conscience is but ruin of the soul", wrote François Rabelais. This visionary quote, having brilliantly crossed the last five centuries, is all too easy to transpose onto the theme of this book: ICT without ethics is but the ruin of man.